



UNITED STATES PATENT AND TRADEMARK OFFICE

cln

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,170	02/20/2004	Weixin Gai	073338.0174 (04-50097 FL	7294
5073	7590	03/22/2007		
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			EXAMINER TU, JULIA P	
			ART UNIT	PAPER NUMBER
			2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
2 MONTHS	03/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 2 MONTHS from 03/22/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mike.furr@bakerbotts.com
ptomail1@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	10/783,170	GAI ET AL.	
	Examiner	Art Unit	
	Julia P. Tu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb. 20, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The examiner suggests to change "gain limiting amplifier 100" in line 10, page 6 to "gain limiting amplifier 110". Appropriate correction is required.

Claim Objections

2. Claims 1-22 are objected to because of the following informalities: To avoid the rejection for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, the examiner suggests to make appropriate correction to the claim invention as follow:

(1) Regarding claim 1:

after "the first portion of the input signal" in line 7, add "to generate a first processed signal"

after "the second portion of the input signal" in lines 8-9, add "to generate a second processed signal"

also, lines 10-11 should be changed to "applying a second-order mathematical operation and a third gain to the third portion of the input signal to generate a second processed signal"

lines 12-13 should be changed to "recombining the first processed signal, the second processed signal, and the third processed signal into an output signal."

(2) Regarding claim 8:

The examiner suggests to change "the gain is applied to each portion of the signal" to "the gain is applied to each portion of the processed signal"

(3) Regarding claim 13:

The examiner suggests to rearrange the components in the claim as it is in the drawing and specification. For example, the drawing shows a first mathematical operator operable to apply a first-order mathematical operation to the second portion of the signal to generate a second processed signal, then a second amplifier operable to apply to the second processed signal. Similar corrections should be corrected throughout the claim.

The examiner also suggests to make appropriate corrections related to the suggested corrections in claim 1.

(3) Regarding claim 22:

The examiner suggests to rearrange the components in the claim as it is in the drawing and specification and to make appropriate corrections similar to the suggested corrections in claims 1 and 13.

Allowable Subject Matter

3. Claims 1-22 would be allowable if rewritten to overcome the objections, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter. The invention comprises a method and apparatus for attenuation in an input signal comprising: receiving an input signal; communicating a first, second, and third portion of the input signal on a first, second, and third path, respectively. The method and apparatus also includes applying a first gain to the first portion of the input signal, applying a first-order mathematical operation and a second gain to the second portion of the input signal, and applying a second-order mathematical operation and a third gain to the third portion of the input signal, and recombining the first, second, and third processed signal into an output signal. The apparatus also comprises an output monitor operable to monitor inter-symbol-interference in the output signal; an adaptive controller coupled to the output monitor operable to adjust one or more of the gains in response to the inter-symbol-interference detected by the output monitor, wherein the adaptive controller controls each of the gains by adjusting a bias current applied to the respective amplifier; and a drive amplifier operable to amplify the output signal and to communicate the output signal to a next destination. The cited prior arts fail to teach applying a first-order mathematical operation and a second gain to the second portion of the input signal, and applying a second-order mathematical operation and a third gain to the third portion of the input signal; recombining the first, second, and third processed signal into an output signal; an output monitor operable to monitor inter-symbol-interference in the output signal; an adaptive controller coupled to the output monitor operable to adjust one or more of the gains in response to the inter-symbol-interference detected by the output monitor, wherein the adaptive controller controls each of the gains by adjusting a

bias current applied to the respective amplifier; and a drive amplifier operable to amplify the output signal and to communicate the output signal to a next destination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julia P. Tu whose telephone number is 571-270-1087. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.T.
03/13/2007


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER